

Abstract

AQUEOUS COMPOSITIONS AND THEIR USE IN THE MANUFACTURE OF PAPER AND PAPERBOARD

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A process of preparing an aqueous composition comprising a polysilicate, wherein the composition is a substantially uniform liquid when measured at 25°C, comprising the steps of,

- i) providing an aqueous liquid having a source of silicate,
- 10 ii) adjusting the pH of the liquid to between about 2 and about 10.5, thereby causing polymerization of the silicate,
- iii) allowing sufficient time for the polymerization to proceed to substantial completion and thereby forming a product comprising gelled material,
- and
- 15 iv) subjecting the gelled material to sufficient shear to form a substantially uniform liquid. The novel aqueous composition made by this process is useful in the manufacture of paper and paperboard either as a mineral filler or as a retention/drainage aid.